



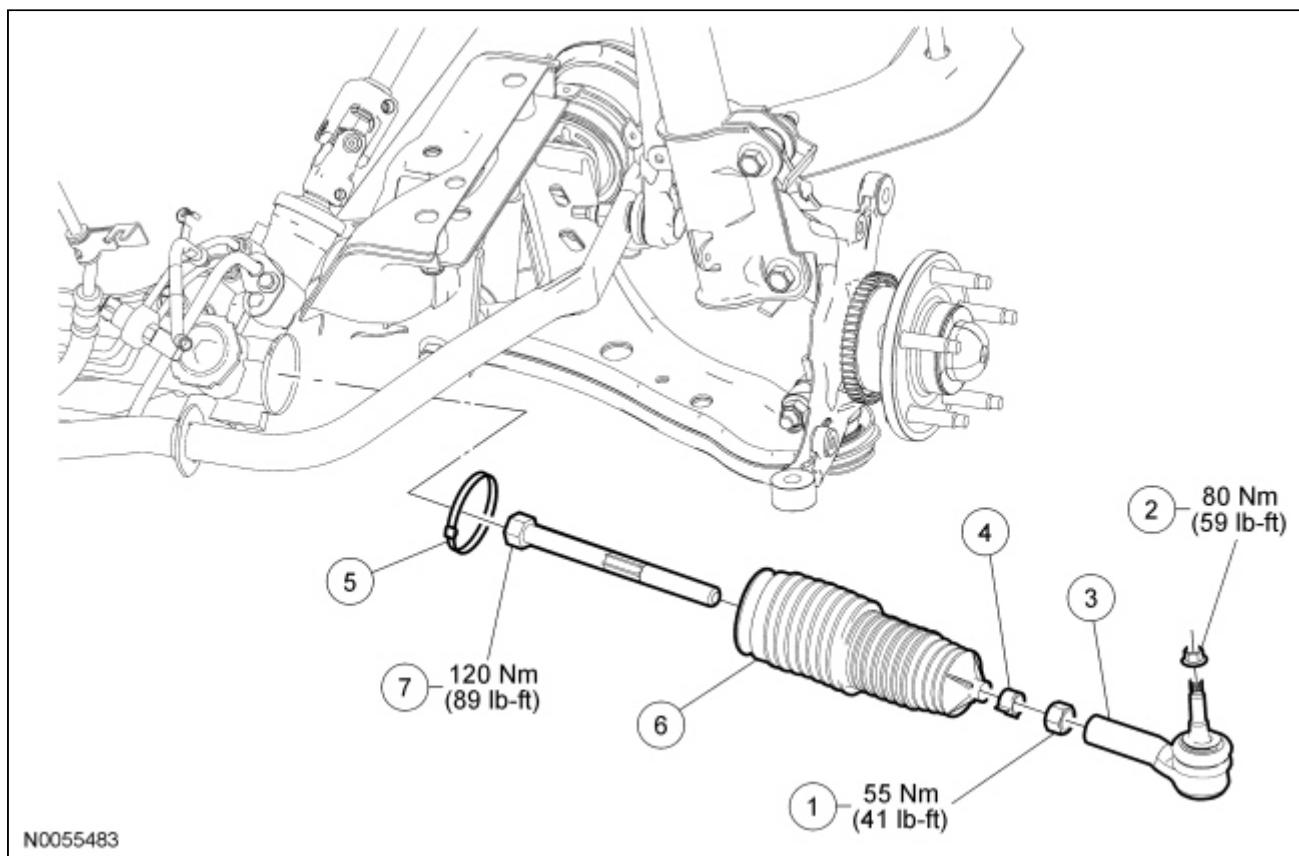
## Inner Tie Rod

### Special Tool(s)

 ST1525-A	Boot Clamp Pliers 205-D067 (D87P-1098-A) or equivalent
 ST1106-A	Tie-Rod End Remover 211-105 (T85M-3395-A)

### Material

Item	Specification
Premium Long-Life Grease XG-1-C or XG-1-K (US); CXG-1-C (Canada)	ESA-M1C75- B



Item	Part Number	Description
1	14094	Tie-rod jam nut (part of 3280)
2	W705606	Tie-rod end nut

3	3289	Tie-rod end
4	3C650A	Outer bellows boot clamp
5	3K745	Inner bellows boot clamp
6	3K661	Steering gear bellows boot
7	3280	Inner tie rod

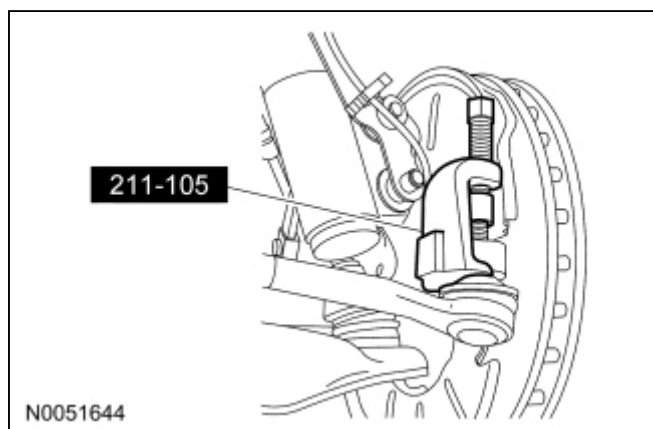
## Removal

**NOTICE:** The steering gear bellows boots and clamps are designed to provide an airtight seal and protect the internal components of the steering gear. If the seal is not airtight, the vacuum generated during turning will draw water and foreign material into the gear causing damage. Zip ties do not produce an airtight seal and must not be used.

**NOTICE:** The inner tie-rod ball joint grease is not compatible with water. Water trapped in the grease may damage the joint.

**NOTICE:** If present, the orientation of the vent tube must be noted so the boots and vent tubes may be installed in the correct location. Incorrect venting may cause damage to internal components.

1. Remove the wheel and tire. For additional information, refer to [Section 204-04](#).
2. Loosen the tie-rod end jam nut.
3. Remove and discard the tie-rod end nut.
4. Using the Tie-Rod End Remover, disconnect the tie-rod end from the wheel knuckle.

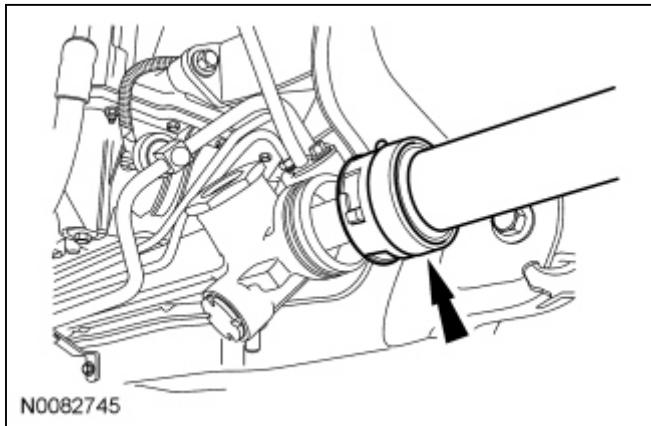


5. **NOTE:** Count the number of turns required to remove the tie-rod end for reference during installation.  
Remove the tie-rod end.
6. Remove the tie-rod end jam nut.
7. **NOTE:** New bellows boot clamps must be installed.  
Remove and discard the inner and outer bellows boot clamp.
8. Remove the steering gear bellows boot.
9. **NOTICE:** Place the steering gear at the center position. Use an appropriate-sized wrench on the flat of the rack gear to resist rotation and to prevent damage during removal and installation of the inner tie rod.

**NOTE:** If repairing the RH side, it will be necessary to pull back the LH inner tie-rod boot to hold the steering gear.

**NOTE:** An assistant may be needed for removal of the RH inner tie rod.

While holding the steering gear rack, use a suitable crowfoot-style inner tie-rod tool or an appropriate-sized crowfoot wrench to remove the inner tie rod.

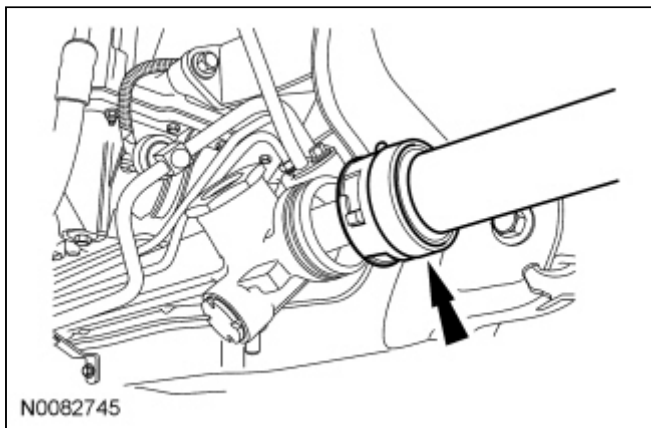


10. **NOTICE:** Thoroughly remove any abrasive material. This material is extremely harmful and may damage the steering gear.

Thoroughly clean and inspect all the parts to be reused. Install new parts as necessary.

## Installation

1. While holding the steering gear rack, use a suitable crowfoot-style inner tie-rod tool or an appropriate-sized crowfoot wrench to install the inner tie rod.
  - Tighten to 120 Nm (89 lb-ft).



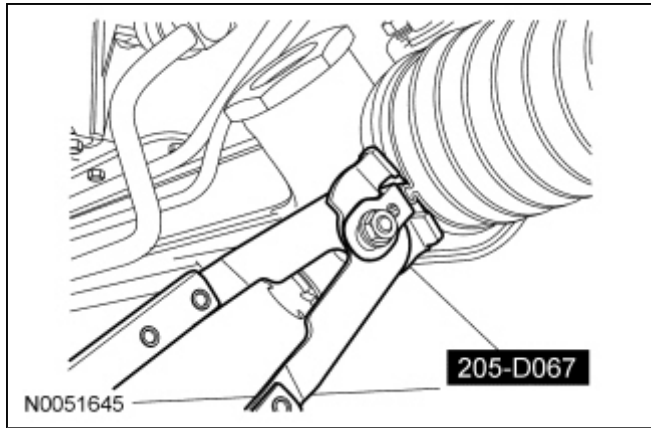
2. **NOTE:** Apply steering gear grease to the steering gear bellows boot groove in the inner tie rod.

**NOTE:** Make sure the steering gear bellows boot is positioned correctly over the steering gear housing bead and the groove in the inner tie rod.

**NOTE:** Make sure the steering gear bellows boot is not twisted and the vent tube is securely inserted into the vent nipple of the steering gear bellows boot.

Install the steering gear bellows boot.

3. Using the Boot Clamp Pliers, install a new inner bellows boot clamp.



4. **NOTE:** Make sure the end of the steering gear bellows is positioned between the 2 grooves on the inner tie rod or an internal leak can result.

Install a new outer bellows boot clamp.

5. Thread the tie-rod end jam nut onto the inner tie rod.
6. **NOTE:** Install the tie-rod end the same number of turns as recorded during the removal.

Install the tie-rod end to the inner tie rod.

7. Position the tie-rod end to the wheel knuckle and install a new tie-rod end nut.
    - Tighten to 80 Nm (59 lb-ft).
  8. Tighten the tie-rod end jam nut.
    - Tighten to 55 Nm (41 lb-ft).
  9. Check and, if necessary, adjust the front toe. For additional information, refer to [Section 204-00](#).
-